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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/092,665	03/07/2002	Tamihei Hiramatsu	21778.06100	3836
58076	7590	06/13/2006	EXAMINER	
REED SMITH, LLP TWO EMBARCADERO CENTER SUITE 2000 SAN FRANCISCO, CA 94111			WONG, WARNER	
			ART UNIT	PAPER NUMBER
			2616	

DATE MAILED: 06/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/092,665

Applicant(s)

HIRAMATSU ET AL.

Examiner

Warner Wong

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 13 April 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-11, 13-18, 20, 21, 23-25 and 27-31 is/are rejected.
- 7) ☒ Claim(s) 4, 12, 19, 22, 26 and 32 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35

U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-3, 5-7, 9-11, 13-15, 17, 20, 23-25 and 27-29 are rejected under 35

U.S.C. 102(e) as being anticipated by Aggarwal (US 751,336).

**Regarding claims 1 and 9**, Aggarwal describes a transmitting apparatus/method for transmitting a content program (fig. 3, video server), comprising:

a record medium on which at least one content has been written (col. 3, lines 2-4, where the video server 100 includes memory buffer 110 for storing video blocks (contents));

a section generator that divides the content program into sections, section 1 to section n (where n is an integer) such manner that when the content is divided into the section 1 to the section n in a predetermined ratio, the length of section n is longer than length of section 1 (fig. 1 & col. 3, lines 49-67, where the Fibonacci segment scheduler 116 (section generator) yields segments where length of (i+1)th segment (section) is twice as long as the ith segment);

Art Unit: 2616

a signal formatter that formats a signal in such a manner that the length of data of each of the section 1 to the section in the content program is the same in each of channel 1 to channel n (fig. 1, where the control processes 120 (signal formatter) yield output blocks, & from col. 3, lines 49-67, it exemplifies 2 movies (channels) with each of the movie segment (section), e.g. A1 & A2, divided in same lengths);

a multiplexer to multiplex the signal formatted by the signal formatter (fig. 1 & col. 3, lines 13-17, where the block selector 118 (multiplexer) selects (multiplexes) sections (segments) of the 2 movies (channels) to be broadcasted to client stations);

a transmitter to transmit the multiplexed signal (fig. 3, network interface 112 (transmitter) to transmit the broadcast (multiplexed) signal);

**Regarding claims 17 and 20**, DeBey describes a receiving apparatus/method for receiving a signal from a transmitting apparatus and reproducing the received signal (fig. 3, client station 122):

The transmitting apparatus comprising:

a first record medium on which at least one content program has been written (col. 3, lines 2-4, where the video server 100 includes memory buffer 110 for storing video blocks (contents)), a section generator that divides the content program into sections, section 1 to section n (where n is an integer) in such a manner that when the content program is divided into the section 1 to the section n in a predetermined ratio, the length of section n is longer than the length of section 1 (fig. 1 & col. 3, lines 49-67, where the Fibonacci segment scheduler

Art Unit: 2616

116 (section generator) yields segments where length of  $(i+1)$ th segment (section) is twice as long as the  $i$ th segment), a signal formatter that formats a signal in such a manner that the length of data of each of the section 1 to the section  $n$  in the content program is the same in each of channel 1 to channel  $n$  (fig. 1, where the control processes 120 (signal formatter) yield output blocks, & from col. 3, lines 49-67, it exemplifies 2 movies (channels) with each of the movie segment (section), e.g. A1 & A2, divided in same lengths), a multiplexer to multiplex the formatted signal (fig. 1 & col. 3, lines 13-17, where the block selector 118 (multiplexer) selects (multiplexes) sections (segments) of the 2 movies (channels) to be broadcasted to client stations), a transmitter to transmit the multiplexed signal (fig. 3, network interface 112 (transmitter) to transmit the broadcast (multiplexed) signal);

the receiving apparatus comprising:

a separator for separating the received signal (fig. 6 & col. 7, lines 57-60, where the TDM demultiplexor 608 (separator) selects (separate) the received TDM signal,);

a detector to detect a beginning data of each of the section 1 to the section  $n$  from the separated signals (fig. 6 & col. 7, lines 60-63, where the block demultiplexor 612 (detector) is used to select (detect) the blocks (beginning data of the desired sections));

a second record medium on which the beginning data of each of the section 1 to the section  $n$  is written to channel 1 to channel  $n$ , respectively (fig. 6 & col. 8, lines 3-5, where buffer memory 130 is selected video blocks are stored);

Art Unit: 2616

a reader to successively read data of the section 2 to the section n from said second record medium after the beginning data of the section 1 is detected, the data of the section 1 is written to said second record medium starting from the beginning data of the section 1, the data of the section 1 is read from said second record medium, and the data of the section n is read from said second record medium (col. 5, lines 3-7, where the decoder reads data blocks from buffer (record medium) in temporal order (successively for sections 1, 2 .. to section n);

a content reproduction apparatus to reproduce the data of the section to the section n that has been read from said second record medium (col. 8, lines 5-7, where the user display device (content reproduction apparatus) reproducing the once segmented (sectioned) video).

**Regarding claim 23**, Aggarwal describes a transmitting and receiving system having a transmitting apparatus for transmitting a content program and at least one receiving apparatus for receiving the transmitting content and reproducing the received content program (fig. 3, system with video server (transmitting apparatus) & client station (receiver)), wherein the transmitting apparatus comprises:

a first record medium on which at least one content is stored (col. 3, lines 2-4, where the video server 100 includes memory buffer 110 for storing video blocks (contents));

a section generator that divides the content program into sections, section 1 to section n (where n is an integer) such manner that when the content is

Art Unit: 2616

divided into the section 1 to the section n in a predetermined ratio, the length of section n is longer than length of section 1 (fig. 1 & col. 3, lines 49-67, where the Fibonacci segment scheduler 116 (section generator) yields segments where length of (i+1)th segment (section) is twice as long as the ith segment);

a signal formatter that formats a signal in such a manner that the length of data of each of the section 1 to the section in the content program is the same in each of channel 1 to channel n (fig.1, where the control processes 120 (signal formatter) yield output blocks, & from col. 3, lines 49-67, it exemplifies 2 movies (channels) with each of the movie segment (section), e.g. A1 & A2, divided in same lengths);

a multiplexer to multiplex the signal formatted by the signal formatter (fig. 1 & col. 3, lines 13-17, where the block selector 118 (multiplexer) selects (multiplexes) sections (segments) of the 2 movies (channels) to be broadcasted to client stations);

a transmitter to transmit the multiplexed signal (fig. 3, network interface 112 (transmitter) to transmit the broadcast (multiplexed) signal);

wherein the receiving apparatus comprises:

a separator to separate the received signal (fig. 6 & col. 7, lines 57-60, where the TDM demultiplexor 608 (separator) selects (separate) the received TDM signal,);

a detector to detect a beginning data of each of the section 1 to the section n from the separated signals (fig. 6 & col. 7, lines 60-63, where the block

Art Unit: 2616

demultiplexor 612 (detector) is used to select (detect) the blocks (beginning data of the desired sections));

a second record medium on which the beginning data of each of the section 1 to the section n is written to channel 1 to channel n, respectively (fig. 6 & col. 8, lines 3-5, where buffer memory 130 is selected video blocks are stored);

a reader to successively read data of the section 2 to the section n from said second record medium after the beginning data of the section 1 is detected, the data of the section 1 is written to said second record medium starting from the beginning data of the section 1, the data of the section 1 is read from said second record medium, and the data of the section n is read from the said second record medium (col. 5, lines 3-7, where the decoder reads data blocks from buffer (record medium) in temporal order (successively for sections 1, 2 .. to section n);

a content reproduction apparatus to reproduce the data of the section to the section n that has been read from said second record medium (col. 8, lines 5-7, where the user display device (content reproduction apparatus) reproducing the once segmented (sectioned) video).



Art Unit: 2616

**Regarding claims 2, 10 and 24**, Aggarwal further describes that the data of each of the section 1 to the section n has been written to said record medium corresponding to pre-designated addresses (col. 3, lines 10-13 & 40-41, where the addresses to the data of sections 1-n are inherently predesignated since video server knows where to retrieve all the data in the RAID disks 102 (record medium)).

**Regarding claims 3, 11 and 25**, Aggarwal further describes that the content program is divided by n so that a ratio of the length of the section 1 to the section n is 1, 2, 4,...,  $2^{(n-1)}$ , respectively (fig. 1, where the yielded segments (sections) A1, B1, C1 & D2, each has twice the lengths of the previous sections).

**Regarding claims 5, 13 and 27**, Aggarwal further describes that the data of section 1 to section n-1 is repeated so that the length of signals of the channel 1 to the channel n-1 is the same as the length of a signal of the channel n (fig. 1, where segments of movie 1 have the same corresponding lengths to segments of movie 2).

**Regarding claims 6, 14 and 28**, Aggarwal further describes that the signal formatter repeats data of each of the section 1 to section m-1 so that the length of each of signals of the channel 1 to channel m-1 (where  $1 < m < n$ ; m is an integer) is the same as the length of a signal of the channel m and that the length of each of the signals of the channel m to the channel n is the same as the length of the signal of the channel m (fig. 1 & col. 2, lines 11-15, where all N movies (channels) are being repeated (N=2 movies in fig. 1), and has the same length, i.e. 1st length = mth length = nth length).

Art Unit: 2616

Aggarwal fails to describe that the multiplexer multiplexes synchronous data, flag data and data of section 1 to section n, the synchronous data being used to establish a synchronization with the receiver, the flag data representing that beginning data is contained in each of the section 1 to the section n.

**Regarding claims 7, 15 and 29**, Aggarwal describes that the multiplexer multiplexes synchronous data, flag data and data of section 1 to section n, the synchronous data being used to establish a synchronization with the receiver, the flag data representing that beginning data is contained in each of the section 1 to the section n (col. 7, lines 20-29 & 57-60, where a header, along with the channel data portion of the movie ID, may be used in front of the blocks for synchronization with the client/receiver and flag representing beginning of section 1 to section n,).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 8, 16 and 30** are rejected under 35 U.S.C. 103(a) as being unpatentable over Aggarwal in view of DeBey (5,701,582).

Aggarwal fails to describe that the multiplexed signal is modulated.

Art Unit: 2616

DeBey describe that the multiplex signal is modulated (fig. 2, where the modems 34 are used to modulated the outgoing multiplexed digital data signal to analog to be sent to receivers 40 via a CATV distribution network 36).

It would have been obvious to one with ordinary skill of art at the time of invention by applicant to describe using modems and CATV distribution network of DeBey in place of a data network as depicted by Aggarwal.

The motivation for combining the teachings is that it provides compatibility with existing CATV video distribution system for video-on-demand (DeBey, col. 2, lines 38-45).

3. **Claims 18, 21 and 31** are rejected under 35 U.S.C. 103(a) as being unpatentable over Aggarwal.

Aggarwal describes that the section 1 to the section n of flag data contained in the signal so as to detect whether or not beginning data of the section 1 to the section n are present (col. 57-60, where within the received Movie ID (flag data), the channel data portion indicates (detects) which (availability of) the segments (section 1 to section n) are present).

Aggarwal fails to specifically describe using individual bits 1 to n to corresponding to the availability of section 1 to n.

The examiner takes official notice that sets of bits are widely used to indicate corresponding sets of states being transmitted.

Art Unit: 2616

The motivation for using bits to represent states being transmitted is so that the recipient would interpret the current states of the transmitting information using a small transmission footprint (size).

***Allowable Subject Matter***

1. Claims 4, 12, 19, 22, 26 and 32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

2. Applicant's arguments with respect to independent claims 1, 9, 17, 20 & 23 and their dependent claims respectively, have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Hejna, Jr (US 2002/0083460) and Robinett (US 2004/0136409).

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory

Art Unit: 2616

action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Warner Wong whose telephone number is 571-272-8197. The examiner can normally be reached on 6:30AM - 3:00PM, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Warner Wong  
Examiner  
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